

REMARKS/ARGUMENTS

Applicants thank Examiner Diamond for discussing the application with Applicants' representatives on September 30, 2004. During the discussion, Applicants noted that the solar strings of Takehara are connected in parallel, not in series, and the detection measurements are measured across the solar string and compared relative to the average value of all the solar strings. Applicants further noted that Takehara lacks the shunt in Claim 12. The Examiner noted that Applicants appear to be correct, and indicated that he would further consider Applicants' arguments as submitted herein.

Claims 11 and 12 are currently amended. They replace the word "sensor" with "sensors" to address the Examiner's objection.

No new matter is added.

The rejections of Claims 1-13, 15-17, 20 and 21 under 35 U.S.C. §102(e) and Claims 1-21 under 35 U.S.C. §103(a) over Matsushita (US 6,653,549) are respectfully traversed.

The certified priority document was filed on September 15, 2004, and during the interview, Examiner Diamond indicated that he received the priority document. As the Examiner has already acknowledged that the certified English translation filed on July 22, 2004 fully supports the instantly claimed invention, and as Applicants have perfected priority, withdrawal of the rejections is requested.

The rejections of Claims 6, 11-13, 15-17 and 20-21 under 35 U.S.C. §102(b) and Claims 1-21 under 35 U.S.C. §103(a) over Takehara (US 5,669,987) are respectfully traversed.

As discussed at the interview, the present invention detects at least two variable measurement signals on at least two solar cells spaced from each other in the solar module wherein the solar module comprises a plurality of solar cells connected electrically in series (see Claims 1, 6 and 11).

In contrast, the detecting solar strings of Takehara are connected in parallel, not in series, and the detection measurements are measured across the solar string and compared relative to the average value of all the solar strings.

Additionally, in Claim 12, although the detecting solar cells are not integrated into the series circuit of the plurality of individual solar cells, Applicants direct the Office's attention to the shunt which bypasses the series circuit of at least some of the solar cells when a difference between the measurement signals exceed a threshold value. Taking Figure 1 in Takehara as an example, if a shunt is formed across, for example, string 11, serious problems would be caused in this configuration. Therefore, Takehara cannot describe or suggest the present invention of Claim 12.

Applicants further direct the Office's attention to the significant benefit of the present invention relative to Takehara. Takehara requires a large number of the solar strings to be present for a "proper standard value" to be set, and if not, "this makes it difficult to perform accurate defect detection" (see col. 4, lines 7-25). However, the present invention does not rely on any other neighboring solar modules, but accurately detects the difference between the measurement signals all within a single module.

Therefore, as Takehara fails to disclose or suggest the present invention, withdrawal of the rejection is requested.

Applicants submit the application is now in condition for allowance. Early notification of such allowance is earnestly solicited.

Respectfully submitted,

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